413 3 4 1998

SEQUENCE LISTING

|ÎM-**GEME**RAL INFORMATION:

- (i) AFPLICANT: Pomerantz, Joel L. Sharp, Phillip A. Pabo, Carl O.
- (ii) TITLE OF INVENTION: CHIMERIC TRANSCRIPTION FACTORS
- (iii) NUMBER OF SEQUENCES: 32
- (iv) CORRESPONDENCE ALDRESS:
 - (A) ADDRESSEE: FOLEY, HOAG & ELIOT LIP
 - (B) STREET: (ne East Office Square
 - (C) CITY: Boston
 - (I) STATE: MA
 - (E) COUNTRY: USA
 - (F) DIF: 01119-2110
 - (v) COMPUTER FEARABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM EC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: Patentin Release #1.0, Version #1.30
- (vi) CUFRENT APPLICATION DATA:
 - (A) AFFLICATION NUMBER: US 08/366,083
 - (B) FILING LATE: 19-DEC-1994
 - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFOFMATION:
 - (A) NAME: Vincent, Matthew P.
 - (B) REGISTRATION NUMBER: 36,709
 - (7) REFERENCE/DOCKET NUMBER: APV-022.01
 - (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 617-832-1000
 - (B) TELEFAM: 617-632-7000
- (2) INFORMATION FOR SEQ 10 NO:1:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 16 base pairs
 - (P) TYPE: nubleud abid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: DNA 'genomic)
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

STITEGOACO TGACTAATTI AAGGAG

(2) INFORMATION FOR SEQ ID NO:2:

26

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•	CEQUENCE (HARACTERISTICO: A LENGTH: US base pairs B TYPE: nucleic acid CO STRANCEONESS: single D TOPOLOGY: linear	
<u> </u>	MOLECULE TYPE: DNA genomic	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:2:	
GCGTTAAT	TA AGGGAGGTAA GGCCC	25
(2) INFO	RMATION FIR SEL IT NO:3:	
(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 15 hase pairs (B) TYPE: nucleic acid (C) STRANDECHESS: single (D) TOP-LOGY: linear	
(ii	MOLECULE TYPE: DNA genomic)	
(xi	SEQUENCE DESCRIPTION: SEQ ID NO:3:	
CTCGGCCG	STT AATGAGGGGT STTCG	25
(2) INFO	DRMATION FOR SEQ IT NO:4:	
(i·	SEQUENCE CHARACTERISTICS: (A) LENGTH: 15 hase pairs (E) TYPF: nucleic acid (C) STRANGEINESS: single (D) TOPOLOGY: linear	
(ii)	MCLECULE TYPE: DNA (genomic)	
(×i)	SEQUENTE DESCRIPTION: SEQ ID NO:4:	
TAATTAT	GGG IGGGATIGAA TAGIC	25
(2) INF3	DRMATION FOR SEL ID NO:5:	
(1)	SEQUENCE CHAFACTERISTICS: (A) LENGTH: U6 base pairs (B) TYEF: nubleid adid (C) STFANDEDNESS: single (D) TOFOLOGY: linear	
(11)	MCLECULE TYPE: DNA (genomic)	

xi seguance description: seg il no:e:	
GUCARTARIO ARTODITIAR TIRIGG	2 6
2 INFORMATION FOR SEQ ID NO:6:	
<pre>(i SEQUENCE CHARACTERISTICS: (A) LENGTH: 16 base pairs (B) TYPE: nucleic acid (C) STPANDEDNESS: single (D) TOFOLCGY: linear</pre>	
(ii' MOLECULE TYPE: DNA genomic)	
(xi) SEQUENCE DESCRIPTION: 3EQ ID NO:6:	
GGCCGTACCT CATGAAATTA GGGGCG	2 €
(2) INFORMATION FOR SEQ ID NO:7:	
(i) SEQUENCE CHAFACTERISTICS:(A) LENGTH: L5 kase pairs(B) TYPE: nucleic acid(C) STFANDEDMESS: single(C) TOFOLOGY: linear	
(ii) MOIECULE TYPE: DNA (genomic)	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:	
GTTAATTATG GGGTAATAAT GGTGC	25
(2) INFORMATION FOR SEQ ID NO:8:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 05 base pairs (B) TYPE: nubleic acid (C) STRANDEDMESS: single (D) TOPOLOGY: linear	
(ii) MOLECULE TYPF: DNA (genomic)	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:	
GIOGGGOTOT GITAATTATG NGTGG	25
(2) INFORMATION FOR SEQ ID NO:9:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid	

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ii Mulecule IVIE: LNA geninin	
<pre>w: selvence description: sel id Nu:4:</pre>	
SCATAATTAC GUSTGGCATT TAGGC	2.5
]; INFORMATION FOR SEQ ID NO:11:	
(1) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPCLOGY: linear	
(ii) MGLECULE TYPE: DNA (genomia)	
(xi) SEQUENCE DESCFIPTION: SEQ ID NO:10:	
GATAAATAGG GGCGTCCCAT CCCGT	25
(2) INFORMATION FOR SEC ID NO:11:	
(i: SEQUENCE CHARACTERISTICS: (A) LENGTH: 14 base pairs (B) TYPE: nucleic acid (C) STRANDEDMESS: single (C) TOPDICGY: linear	
(ii) MOLECULE TYPE: DNA (genomic)	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:	
TAAATTAGGG CTTTAATTAC GGTC	24
(2) INFORMATION FOR SEQ ID NO:12:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) SIRANDEDNESS: single (D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: DNA (genomic)	
xi SEQUENCE DESCRIPTION: SEQ ID NU:12:	

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٠.	INF.RMATION FOR SE, II NOTE:	
	1 SEQUENCE CHARACTERISTICS: [A] LENGTH: Le pase pairs B TYPE: nucleic actd C STRANDEDNESS: single [D TOPOLOGY: linear	
	(ii) MOLECULE TYPE: DNA (genomio)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:	
TAGT	TGCTAA TTTGTATTAA TTAAAG	26
(2)	INFORMATION FOR SEQ ID NC:14:	
	 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 15 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (I) TOPGLOGY: linear 	
	(ii) MOLECULE TYPE: DNA :genomic)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:	
AGT	FATTAAT TAAGAAIGIT AATTA	25
(2)	INFORMATION FOR SEQ IE NO:15:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 15 base pairs (B) TYPE: nucleic soid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii) MOLECULE TYPE: DNA genomic)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:	
GTG	IGATAAT GAGCIGGTCC GTCCC	2
(2.)	INFORMATION FOR SEQ ID NO:16:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	

li M LETTLE TYPE: DNA denomin

	wi seguende desoription: seg id no:16:	
AIAT	TAABBO STAATUGBBA GAABA	: 5
	INFORMATION FOR SEQ ID NO:17:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 12 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii) MOLECULE TYPE: DNA (genomia)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:	
TAAT	TTANGGG NG	12
(2)	INFORMATION FOR SEQ ID NO:18:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 12 base pairs (B) TYPE: nucleic acid (C) STRANGEDNESS: single (I) TOPOLOGY: linear	
	(ii) MOLECULE TYPE: ENA genomic)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:	
AAA	INNT GGG GG	12
(2)	INFORMATION FOR SEQ ID NO:19:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 12 base pairs (B) TYPE: nucleic acid (C) STRANGEDNESS: single (D) TOPOLOGY: linear	
	(ii) MOLECULE TYPE: DNA (genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:	
200	CANNAA AT	- 0
	INFORMATION FOR SEQ ID NO:20:	

	i SELVENCE CHARACTERICII U: A LENGTH: l'obase pairs B CYPE: nucleon acid C STRANDEINESS: single D COPOLOGY: linear	
	ii Mileoule Type: CNA skromic	
	(xi) sequence description: seq id No:20:	10
	INFORMATION FOR SEQ ID NO:21:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 12 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (C) TOPCLOGY: linear	
	(ii) MCLECULE TYPE: INA (genomic)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:	
TAAT	IGATGGG CG	12
(2)	INFORMATION FOR SEQ ID NO:22:	
	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 63 base pairs(B) TYPE: nucleic acid(C) SIRANDEDNESS: single(D) TOPOLOGY: linear	
	(ii) MOLECULE TYPE: LNA (genomic)	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:	
GGCI	TGAGTOT GAACEGATIC NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	60
TCG		63
.2.,	INFORMATION FOR SEQ ID NO:23:	
	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 12 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	ii MCLETULE TYPE: DNA genomic	

, H 1.	SEQUENCE DESCRIPTION: SEQ ID NO:23:	
TCATTATGG	ia as	
(2) INFOR	MATION FOR SEQ ID NO:24:	
(4)	SEQUENCE CHARACTERISTICS: (A) LENGTH: base pairs (B) TYPE: nubleic acid (C) STRANDEDNESS: single (D) TIEULOGY: linear	
(11)	MOLECULE TYPE: DNA (genomic)	
(xi)	SEQUENCE DESCRIPTION: SEQ ID No:24:	
CCTCGAGGI	TO ATTATGGGOG STAGGTACC	29
(2) INFOR	RMATION FOR SE, IC NO:25:	
(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: .9 pase pairs (B) TYFE: nurleic acid (C) STFANDEDMESS: single (D) TOFOLOGY: linear	
(fi)	MCLECULE TYPE: DNA genomic)	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:25:	
CCTCGAGG	CG CCCATCATTA CTAGGCACC	29
(2) INFO	RMATION FOR SEQ ID NO:26:	
	SEQUENCE CHAFACTERISTICS: (A) LENGTH: D6 base pairs (B) LYFE: number actd (D) FIRANCEINESS: single D) COFOLOGY: linear	
(ii)	MOLECULE TYPE: DNA (genomic)	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:26:	
CCTCGAGG	OG COCACGCOTA GGTACC	2
(2) INFO	RMATION FOR SEQ ID NO:27:	

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xan seguende description: seguid no:27:	
CCTCGAGGTO ATTTGCATAC TAGGTACC	î. Î
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THE TARROTHER ON TOD OTHER TO ME. T	
[2] INFORMATION FOR SEQ ID NC:24:	
/ / AFAUTAN AURELANDE TARTAA	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 43 base pairs	
(B) TYPE: nucleic acid (C) STRANDEDNESS: single	
(N) S.KANDEUNESS: Single	
(D) TOPOLOGY: linear	
('') MOLEGIUE EURE DIT	
(ii) MOLECULE TYPE: DNA genomia)	
/ 1) OF HENDE PERSONALIZATION OF A 10 NO 00	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:	
CONTROL TO ALLEG TO ALCELTO ALLEGO ALLEGO ALC	43
GGTACCAGTA TGCAAAIGAC IGCAGTATGC AAATGACCTC GAG	4.3
(2) INFORMATION FOR SEC. ID NO. 22.	
(2) INFORMATION FOR SEQ ID NO:29:	
(i) SEQUENCE CHARACTERISTICS:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (I) STRANDEDNESS: single	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 39 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (I) STRANDEDNESS: single	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 39 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 39 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 39 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) 	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 39 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:	2.0
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) 	33
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (T) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGGGGGGGGGGGGGGGGGGGGGGGGG	33
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:	33
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGO GTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGO GTGGGGGGGTGGG CAGGCGTGGGG CGCCTCGAG (2) INFORMATION FOR SEQ ID NO:30: (ii) SEQUENCE CHARACTERISTICS:	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGCCTG CAGGCGTGGG CGCCTCGAG (I) INFORMATION FOR SEQ ID NO:30: (i) SEQUENCE CHARACTERISTICS: (A, LENGTH: 48 base pairs	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (I) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGGGGTG CAGGCGTGGG CGCCTCGAG (I) INFORMATION FOR SEQ ID NO:30: (i) SEQUENCE CHARACTERISTICS: (A, LENGTH: 45 base pairs (B) TYPE: nucleic acid	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGGGGGCTG CAGGCGTGGG CGCCTCGAG (I) INFORMATION FOR SEQ ID NO:30: (i) SEQUENCE CHARACTERISTICS: (A, LENGTH: 45 base pairs (B) TYPE: nucleic acid (C) STEANDELNESS: single	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (I) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGGGGTG CAGGCGTGGG CGCCTCGAG (I) INFORMATION FOR SEQ ID NO:30: (i) SEQUENCE CHARACTERISTICS: (A, LENGTH: 45 base pairs (B) TYPE: nucleic acid	39
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: GGTACCAGGC GTGGGGGGGCTG CAGGCGTGGG CGCCTCGAG (I) INFORMATION FOR SEQ ID NO:30: (i) SEQUENCE CHARACTERISTICS: (A, LENGTH: 45 base pairs (B) TYPE: nucleic acid (C) STEANDELNESS: single	39

MA SECTION DECORPTION: SE, IN MARCH GOTACCARTA ATRACTRARRO CIGCASTAAT GATGGGGGCC TOGAG

4.5

: INFORMATION FOR SEQ ID NO:31:

. . .

- _i SEQUENCE CHARACTERISTICS:
 - _A' LENGTH: 11 amino acids _B' TYPE: amino acid _C' STRANDEDNESS:

 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

Met Tyr Pro Tyr Asp Val Pro Asp Tyr Ala

- (2) INFORMATION FOR SEQ ID NO:32:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 14 amino acids
 - (B) TYPE: amine acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Arg Thr His Thr Gly Gly Gly Arg Arg Arg Lys Lys Arg Thr